UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9
75 HAWTHORNE STREET
SAN FRANCISCO, CALIFRONIA 94105

ENFORCEMENT AND COMPLIANCE
ASSURANCE DIVISION

DATE:	March 25, 2022
SUBJECT:	CLEAN AIR ACT INSPECTION REPORT Republic Services Newby Island Landfill, Milpitas, California
FROM:	Tyler Holybee, Environmental Engineer Air Section, Air, Waste & Analysis Branch, Enforcement and Compliance Assurance Division
THRU:	Roshni Brahmbhatt, Manager Air Section, Air, Waste & Analysis Branch, Enforcement and Compliance Assurance Division
TO:	File

BASIC INFORMATION

Facility Name: Republic Services Newby Island Landfill

Facility Location: 1601 Dixon Landing Rd, Milpitas, CA 95035

Date of Inspection: January 27, 2022

EPA Inspectors:
1. Tyler Holybee, Environmental Engineer
2. Scott Connolly, Environmental Engineer
3. Janice Chan, Physical Scientist

Other Attendees
1. Rachelle Huber, Environmental Manager, Republic
2. Dan North, General Manager, Republic
3. Anthony Boccaleoni, Division Manager, Republic
4. Sara Tamber, Air Pollution Specialist, California Air and Resource Board
5. Jayendra Patel, Air Quality Inspector II, Bay Area Air Quality Management District
6. Alyssa Espiritu, Air Quality Inspector I, Bay Area Air Quality Management District

Facility Name: Republic Services Newby Island Landfill
Facility Location: 1601 Dixon Landing Rd, Milpitas, CA 95035
Date of Inspection: January 27, 2022

Contact Email Addresses: Rachell Huber, Environmental Manager: RHuber2@republicservices.com

Purpose of Inspection: To determine compliance with the Clean Air Act

Facility Type: Municipal Solid Waste Landfill

Regulations Central to Inspection: 40 C.F.R. Part 60 Standards of Performance for Municipal Solid Waste Landfills

Arrival Time: 9:50 am
Departure Time: 2:30 pm

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Credentials Presented
☒ CBI warning to facility provided

The following information was obtained verbally from Rachelle Huber, Dan North, or Anthony Boccaleoni unless otherwise noted.

Facility and Process Description:
The Republic Services Newby Island Landfill (the landfill) is a municipal solid waste landfill permitted for 50.8 million cubic yards (mcy) of waste on 298 acres. At the time of the inspection, the landfill submitted a vertical expansion request for an additional 6.7 mcy of waste and a projected remaining lifetime of about 14 years. The landfill began accepting waste in 1932, and underwent various expansions in the 50s-80s. Currently, the landfill places about 2,000 of 4,000 permitted tons per day of waste and cover. Native soil from the San Francisco bay is used as cover primarily. Construction demolition material, biosolids, and profiled soil is also used. Landfill gas of about 50% methane is collected via 254 wells and routed to one of two John Zinc flares, with a model year 2005 (aka Z-Top) and 2015 (aka Zule). The 2005 flare has a capacity of 2,400 square cubic feet per minute (scfm) and the 2015 flare has a capacity of 5,000 scfm. The flares operate at approximately 1500-degrees Fahrenheit, with a maximum of 1600-degrees Fahrenheit. The gas is routed via two of three air blowers from three H2S tanks rented and maintained by United Rentals. Republic Services contracts SCS Engineers to conduct leak detection and repair quarterly on the landfill wells and flare as well as surface monitoring. The local Bay Area Air Pollution Control District conducts weekly surface monitoring as well. The landfill historically utilized a gas-to-energy process onsite until it was decommissioned in 2010 following non-compliance. The landfill also operates a composting pile operation onsite.

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TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:
At the time of the inspection the 5,000 scfm flare was not operating and undergoing flare tip maintenance. The smaller flare was operating under 2,219 scfm and 1823 degrees Fahrenheit. There was a visible irregular flame above the operating flare. At the time of inspection, the landfill has submitted two higher operating value (HOV) requests to the local air district and EPA for temperatures >145 degrees Fahrenheit at four of their recently constructed wells. The landfill was currently placing waste in Cell 17, beginning in 2019. Surface air monitoring near some wells at the landfill was conducted by Sara Tamber (CARB) and is summarized in Appendix B. A total of five leaking wells were identified during the inspection (>500ppm). Rachelle Huber stated that the system was likely under less than optimal vacuum due to one of the flares being down for maintenance and the upper limits of the operational flare.

Photos and/or Videos: were taken during the inspection.
A log of photos is contained in Appendix A.

Field Measurements: were taken during this inspection.
A log of measurements is contained in Appendix B.

AREAS OF CONCERN

The following areas of concern were identified during the inspection but were not presented explicitly during the inspection.

1. Multiple leaks of >500ppm were observed at wells at the landfill.
2. The operational flare was operating at 1823 degrees Fahrenheit, above the 1600 degrees maximum limit.
3. A visible and irregular flare was observed above the operational flare.

CLOSING CONFERENCE AND FOLLOW-UP RECORDS REVIEW

A closing conference was conducted, but Sara Tamber of CARB left prior to the conference. EPA notified republic of their option to claim any information/photos collected during the inspection as CBI and Republic decided not to claim any CBI. The ongoing HOV requests to EPA were discussed and the list of records to be requested via email was finalized.

The following documents were sent to EPA via email after the inspection by Rachelle Huber.

1. A copy of the updated HOV request previously sent to EPA,
2. Document(s) detailing the operation of the H2S scrubber tanks,
3. Data collected from the flare station on the day of the inspection,
4. Most recent flyover map with wells identified.

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SIGNATURES

Report Author: Holybee, Tyler Digitally signed by Holybee, Tyler Date: 2022.03.25 12:02:13 -07'00' Date: _____

Section Manager: Brahmbhatt, Roshni Digitally signed by Brahmbhatt, Roshni Date: 2022.03.31 06:44:40 -07'00' Date: _____

APPENDICES AND ATTACHMENTS

1. Appendix A: Digital Image Log
2. Appendix B: Measurement Log

Facility Name: Republic Services Newby Island Landfill
Facility Location: 1601 Dixon Landing Rd, Milpitas, CA 95035
Date of Inspection: January 27, 2022
APPENDIX A: DIGITAL IMAGE LOG

1. Photographer Name: Janice Chan	**2. Date of Inspection:** January 27, 2022
3. Facility Name: Republic Services Newby Island Landfill	**4. Street Address, City, State:** 1601 Dixon Landing Rd, Milpitas, CA 95035
5. Number of Images: 31	**6. Archival Record Location:** US EPA Sharepoint

Image Number	File Name	Date and Time	Description of Image
1	IMG_8000	1/26/2022 9:50	Landfill Main Office
2	IMG_8001	1/26/2022 11:01	Left to Right, Z-Top Flare and Zule Flare
3	IMG_8002	1/26/2022 11:01	Zule Flare (off)
4	IMG_8003	1/26/2022 11:01	Z-Top Flare
5	IMG_8004	1/26/2022 11:03	Lines to Flare
6	IMG_8005	1/26/2022 11:09	Lines to Z-Top Flare
7	IMG_8006	1/26/2022 11:16	Yokogawa overview of flare system
8	IMG_8007	1/26/2022 11:17	Gas flow and flare temperature
9	IMG_8008	1/26/2022 11:41	New well head (755)
10	IMG_8009	1/26/2022 11:56	Accidental shot
11	IMG_8010	1/26/2022 11:57	Overview of new cell from office
12	IMG_8011	1/26/2022 12:20	Different stages of waste
13	IMG_8012	1/26/2022 12:27	New cell before being filled
14	IMG_8013	1/26/2022 12:28	New cell before being filled
15	IMG_8014	1/26/2022 12:35	Green waste – compost soil
16	IMG_8015	1/26/2022 12:48	H2S system overall
17	IMG_8016	1/26/2022 12:51	H2S system prior to tank
18	IMG_8017	1/26/2022 12:52	H2S system after tank to slough
19	IMG_8018	1/26/2022 12:55	H2S tank with temp gauge overall
20	IMG_8019	1/26/2022 12:55	H2S tank with temp max
21	IMG_8020	1/26/2022 12:55	Gauge with valve
22	IMG_8021	1/26/2022 12:55	Temp gauge with measurement
23	IMG_8022	1/26/2022 13:07	HOV wells (690) in front
24	IMG_8023	1/26/2022 13:09	HOV well (690)
25	IMG_8024	1/26/2022 13:14	Well 752 reading at crack
26	IMG_8025	1/26/2022 13:15	Well 752 reading at base
27	IMG_8026	1/26/2022 13:19	Overall of well 752
28	IMG_8027	1/26/2022 13:27	Reading at well 742
29	IMG_8028	1/26/2022 13:27	Overall of well 742
30	IMG_8029	1/26/2022 13:35	Well 702
31	IMG_8030	1/26/2022 13:38	SS17-1, SS17-2, Well head and SS17-3

APPENDIX B: FIELD MEASUREMENT DATA

- Sara Tamber (CARB) used one CARB owned Toxic Vapor Analyzer (TVA) 2020 to conduct the comparative monitoring at the Chevron facility. The TVA was calibrated using Zero Air, 1,000 ppm, and 10,000 ppm as methane.
- EPA Method 21 was used to conduct all monitoring during the inspection.
- All measurements were made between 9:50 am and 2:30 pm on the day of the inspection.
- The table below summarizes the leaking wells that were identified by EPA and CARB at the Newby Island Landfill:

Well Identifier	Reading (ppm)	Notes
W-690	700	Installed 2019, ongoing HOV request for temperature
W-752	7,000	Installed 2020, ongoing HOV request for temperature
W-742	Instrument Max, >17,000	Decommissioned week prior to inspection, scheduled for repair
EW-702	1,200	Installed 2019, flagged by SCS
SS-17	Instrument Max, >3,400	Connection at bottom of Cell 17